DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-011071
Date Inspected: 30-Dec-2009

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island

OSM Arrival Time: 700
OSM Departure Time: 1900
Location: Shanghai, China

CWI Name: Li Yang

Inspected CWI report:	☐ Yes	☑ No	☐ N/A	**CWI Present:**	☑ Yes	☐ No	
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☑ Yes	☐ No	☐ N/A
				Approved WPS:	☑ Yes	☐ No	☐ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006
Component: OBG Trail Assembly

Summary of Items Observed:

On this date Caltrans OSM Quality Assurance (QA) Inspector, S. Manjunath Math was present during the time noted above for observations relative to the work being performed.

This QA Inspector randomly observed the following work in progress:

Orthotropic Box Girder (OBG) Trial Assembly Areas

Segment 1AAE

This Quality Assurance (QA) Inspector witnessed final tension verification for Corner Assembly Barrier Angle (North and South side) between Panel Point (PP) 8.0 to PP 8.5 and PP 8.5 to PP 9.0 for Segment 1AAE. Inspected 10% on a random basis and found the tension to be in general compliance.

Bolt sizes used were M22 x 120 RC Set# DHGM220053 and final torque required was 440 N-m.

Manual Torque wrench was been used with Sr. No. XQ2-625.

Note: Inspection was been performed on Ship Zhenhua # 17.

Segment 1AAW

This Quality Assurance (QA) Inspector witnessed final tension verification for Corner Assembly Barrier Angle (North and South side) between Panel Point (PP) 8.0 to PP 8.5 and PP 8.5 to PP 9.0 for Segment 1AAW. Inspected 10% on a random basis and found the tension to be in general compliance.

Bolt sizes used were M22 x 120 RC Set# DHGM220051 and final torque required was 433 N-m.

Manual Torque wrench was been used with Sr. No. XQ2-625.

Note: Inspection was been performed on Ship Zhenhua # 17.

Segment 2AE

This Quality Assurance (QA) Inspector witnessed final tension verification for Catwalk Step Stool (Bottom Panel Location Cross Beam side) between Panel Point (PP) 14.5 to PP 15 for Segment 2AE. Inspected 10% on a random basis and found the tension to be in general compliance.

Bolt sizes used were M16 x 55 RC Set# DHGM160012 and final torque required was 200 N-m.

Manual Torque wrench was been used with Sr. No. XQ2-625.

Note: Inspection was been performed on Ship Zhenhua # 17.

Segment 2AW

This Quality Assurance (QA) Inspector witnessed final tension verification for Catwalk Step Stool (Bottom Panel Location Cross Beam side) between Panel Point (PP) 14.5 to PP 15 for Segment 2AW. Inspected 10% on a random basis and found the tension to be in general compliance.

Bolt sizes used were M16 x 55 RC Set# DHGM160012 and final torque required was 200 N-m.

Manual Torque wrench was been used with Sr. No. XQ2-625.

Note: Inspection was been performed on Ship Zhenhua # 17.

Segment 5BE to 5CE

This QA Inspector observed ZPMC welding personnel performing Shielded Metal Arc Welding (SMAW) repair welding for Transverse Splice Weld for Bottom Panel for Segment 5BE to 5CE. ZPMC Ultrasonic Test (UT) report no. B 787-UT-9833 R1. Repair were been carried out at 1 (one) location. Weld identified as OBW5A-008. The welder was identified as 054467. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-345-SMAW-1G (1F)-FCM-Repair-1. The repair work was been performed against the Welding Repair Report B-WR9322 Rev.0 Dated 12.19. 2009.

Segment 5BE to 5CE

This QA Inspector observed ZPMC welding personnel performing Shielded Metal Arc Welding (SMAW) repair welding for Transverse Splice Weld for Side Panel Bike Path side for Segment 5BE to 5CE. ZPMC Ultrasonic Test (UT) report no. B 787-UT-9833 R1. Repair were been carried out at 17 (Seventeen) location. Weld identified as OBW5A-009. The welder was identified as 054467. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-345-SMAW-3G (3F)-FCM-Repair-1. The repair work was been performed against the Welding Repair Report B-WR9323 Rev.0 Dated 12.19. 2009.

Segment 5BE to 5CE

This QA Inspector observed ZPMC welding personnel performing Shielded Metal Arc Welding (SMAW) repair welding for Transverse Splice Weld for Side Panel Corner Assembly for Segment 5BE to 5CE. ZPMC Ultrasonic Test (UT) report no. B 787-UT-9833 R1. Repair were been carried out at 3 (Three) location. Weld identified as OBW5A-005. The welder was identified as 048659. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-345-SMAW-3G (3F)-FCM-Repair-1. The repair work was been performed against the Welding Repair Report B-WR9324 Rev.0 Dated 12.19. 2009.

Segment 5BE to 5CE

This QA Inspector observed ZPMC welding personnel performing Shielded Metal Arc Welding (SMAW) repair welding for Transverse Splice Weld for Deck Panel for Segment 5BE to 5CE. ZPMC Ultrasonic Test (UT) report no. B 787-UT-9833 R1. Repair were been carried out at 9 (Nine) location. Weld identified as OBW5-008. The welder was identified as 048659. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-345-SMAW-3G (3F)-FCM-Repair-1. The repair work was been performed against the Welding Repair Report B-WR9313 Rev.0 Dated 12.19. 2009.

Segment 5BE to 5CE

This QA Inspector observed ZPMC welding personnel performing Shielded Metal Arc Welding (SMAW) repair welding for Transverse Splice Weld for Deck Panel Corner Assembly for Segment 5BE to 5CE. ZPMC Ultrasonic Test (UT) report no. B 787-UT-9889 R1. Repair were been carried out at 4 (Four) location. Weld identified as OBW5-009. The welder was identified as 048659. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-345-SMAW-3G (3F)-FCM-Repair-1. The repair work was been performed against the Welding Repair Report B-WR9320 Rev.0 Dated 12.19. 2009.

Segment 6AE

This QA Inspector observed ZPMC welding personnel performing Shielded Metal Arc Welding (SMAW) at Corner Assembly for Segment 6AE between Panel Point (PP) 38 and PP 39. Piece Mark identified as Strut Plate X3S and X8E at 3 Locations. The welder was identified as 048617. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-345-SMAW-3G (3F)-Repair. The repair work was been performed against the Welding Repair Report B-WR9540 Rev.0 Dated 12.27.2009.

Segment 6CE

This QA Inspector observed ZPMC welding personnel performing Shielded Metal Arc Welding (SMAW) at Unequal Angle to the Corner Assembly Vertical Truss Post for Segment 6CE. Weld identified as SSD32-PP 45. 5-001. The welder was identified as 044779. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-P-2113 and WPS-B-P-2112.

Segment 6BW to 6CW

This QA Inspector observed ZPMC personnel at 6BW to 6CW Transverse splice Fit up is in progress.

CB5

This QA Inspector observed ZPMC personnel at CB5 to FL3 for Segment 6AE to 6AW stiffener splice plate fitment is in progress between PP 38 and PP 39.

Segment 5AW to 5BW

This QA Inspector observed at 5AW to 5BW at PP 31 and PP 32 Magnetic Particle Test(MT) been performed by ZPMC personnel and any discontinuities found have been ground and re-welded.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

Summary of Conversations:

No relevant conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact , who represents the Office of Structural Materials for your project.

Inspected By:	Math,Manjunath	Quality Assurance Inspector
Reviewed By:	Miller,Mark	QA Reviewer